fdms.gov

Your Agency's Docket Management System

FDMS Version 4.6.1
Release Notes

Release Date: May 14, 2014

Booz | Allen | Hamilton

E·GOV

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Release Summary

The FDMS Version 4.6.1 Release was intended as a patch release to address the "Null Pointer" Error experienced by users in the FDMS 4 environment.

Null Pointer Error

Issue

FDMS 4 users have reported experiencing a "Null Pointer" error during the FDMS 4 login and randomly throughout the application. When a user experienced this "Null Pointer" error, they would be logged out of the application and redirected to the FDMS 4 login page. The FDMS Team was able to recreate this error internally.

Technical Investigation

The FDMS development team conducted a technical analysis of the FDMS.gov log files and was able to see instances of the "Null Pointer" errors occurring. After research and internal testing, the team was able to narrow down the cause of the error to a problem with how Documentum and Spring security were interacting. Within the FDMS 4 security model, there is a built in feature for "Session Fixation Protection" that can cause session-scoped variables to be removed. After a user was logged into FDMS 4 the Session Fixation Protection was changing a user's HTTP Session ID in order to prevent Session Fixation attacks.

In FDMS 4 the Documentum Session Manager was configured to be a session-scoped variable. Session-scoped variables are variables that are tied to the lifecycle of an HTTP Session ID, meaning, when a user logs in, certain variables such as the users username, role, agency, etc are all retained in these session variables. When an HTTP Session ID is invalidated as a result of the Session Fixation Protection, the session-scoped variables associated with this HTTP Session ID were lost which caused the application to throw the error and forcing them to the login page.

Resolution

The application architecture was reconfigured so that the Documentum Session Manager is no longer a session-scoped variable. The Documentum Session Manager and the information previously stored in the session variables are now stored on each user's Security Context within the application. The Security Context is part of the Spring Security architecture and is unique each time a user logs into FDMS 4. This Security Context will exist until the user logs out of the system or the browser session times out. This fix allows FDMS 4 to retain the Session Fixation Protection and resolve the Null Pointer Exceptions.